

## CLAIMS

1. A solid electrolyte comprising Li, O, P and a transition metal element.
2. The solid electrolyte in accordance with claim 1, wherein,

said transition metal element is at least one selected from the group consisting of Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zr, Nb, Mo, Ru, Ag, Ta, W, Pt and Au.
3. The solid electrolyte in accordance with claim 1, represented by the following formula:
$$\text{Li}_x\text{PT}_y\text{O}_z,$$
where T is a transition metal element, x = 2 to 7, y = 0.01 to 1, and z = 3.5 to 8.
4. The solid electrolyte in accordance with claim 3, wherein,

in said formula, x = 2 to 3, y = 0.01 to 0.5, and z = 3.5 to 4.
5. The solid electrolyte in accordance with claim 3, wherein,

in said formula, x = 2 to 3, y = 0.01 to 1, and z = 3.505 to 7.
6. The solid electrolyte in accordance with claim 3, wherein,

in said formula, x = 2.01 to 7, y = 0.01 to 1, and z = 3.52 to 8.

7. An all solid state battery comprising a positive electrode, a negative electrode and the solid electrolyte in accordance with claim 1 disposed between said positive electrode and said negative electrode.